PE JC54 DEC 09 2002 PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED DEC 12 2002 TC 1700

In re application of HARRY ONO
Serial No. 09/918,238
Filed: July 30, 2001
For: AUTOMATIC SOLDERING MACHINE

Commissioner for Patents
Washington, D. C. 20231

Sir:

Transmitted herewith is an Amendment in the above-identified application.

[ ] No additional fee is required.

[X] The fee has been calculated as shown below.

	Claims As Amended						
Claims Remaining After Amendment		Highest Number Previously Paid For		Present Extra		Rate	Additional Fee
Total Claims	18 minus	20	=	0	x	$ 9.00	= $ 0
Indep. Claims	6 minus	5	=	1	x	$ 42.00	= $ 42.00
			Total Additional Fee for this Amendment				= $ 42.00

[X] A check in the amount of $ 42.00 is attached.

Respectfully,

James A. Geppert
Attorney of Record

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Date of Deposit: December 9, 2002

I hereby certify that this Amendment is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D. C. 20231.

James A. Geppert
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#6/A 12/16/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED DEC 12 2002 TC 1700

In re application of HARRY ONO

Serial No. 09/918,238

Filed: July 30, 2001

For: AUTOMATIC SOLDERING MACHINE

Group Art Unit 1725

Examiner: Kevin L. McHenry

December 9, 2002

AMENDMENT

Commissioner for Patents

Washington, D. C. 20231

Sir:

Responsive to the Office Action dated August 14, 2002, applicant amends as follows.

In the Specification:

Page 6, lines 5 - 15, rewrite the paragraph as follows:

A fifth example according to the teachings of the present invention includes a solder wire feeder and an accurate wire guide mechanism. The solder wire is ductile with a low beam strength, cold flows, not always straight and free of kinks and quite often becomes coated with flux. Also, the guide and feeder mechanism require accommodation for heat and flux contamination. One disclosed example consists of a rigid guide rail, which is open on the top surface, in the form of a groove. The solder wire nests within the groove and is held down with a spring, which is positioned close to

the end of the rail. The spring maintains a pressure against the wire, which keeps the wire straight and deflects whenever irregularities on the wire feed through (See Fig. 2).

A1

Page 9, lines 15 –21, rewrite the paragraph as follows:

Referring to Fig. 1, a pivot plate 16 is bolted on to a shaft 15, which is supported by preloaded ball bearings 14. The plate 16 provides means to support a solder tip holder 30, a wire feed mechanism, a spool of solder wire 19 on a shaft 20, and a cam follower bearing 22. The stationary base plate 2 supports a camshaft 12, gear box 1 and pivot bearing support 3. Two cams 51 and 52, which are mounted on the shaft 12, provide the solder feed and spindle up/down motions.

A2

Page 9, lines 24 -27, rewrite the paragraph as follows:

Coolant water flows into tubes 55 and 56 through nipples 25 and 26, circulates through the lower extensions 31 and 32 of the tubes to the bottom end of the solder tip shanks 33 and 34, upwards around the extensions 31 and 32, and exits out through tubes 53 and 54 in side nipples 23 and 24. The solder tip shanks 33 and 34 are bolted on to an insulator block 30, which in turn is rigidly mounted on to the pivot plate 16.

A3

Page 11, lines 1 – 4, rewrite the paragraph as follows:

A lever 44 pivotally mounted over pin 45, which is rigidly press fitted into plate 16, contains a lower curved surface 42 which presses against the solder wire 18. The pressure is provided by a spring 46. This mechanism provides a calibrated friction force on the solder wire.

A4